

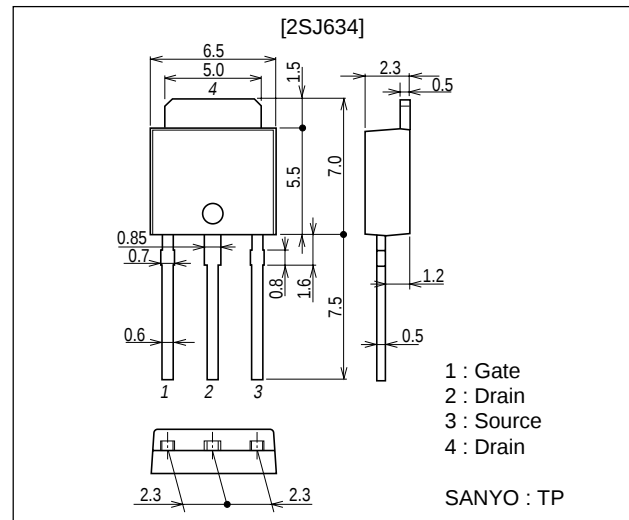
**2SJ634****DC / DC Converter Applications****Preliminary****Features**

- Low ON-resistance.
- Ultrahigh-speed switching.
- 4V drive.

Package Dimensions

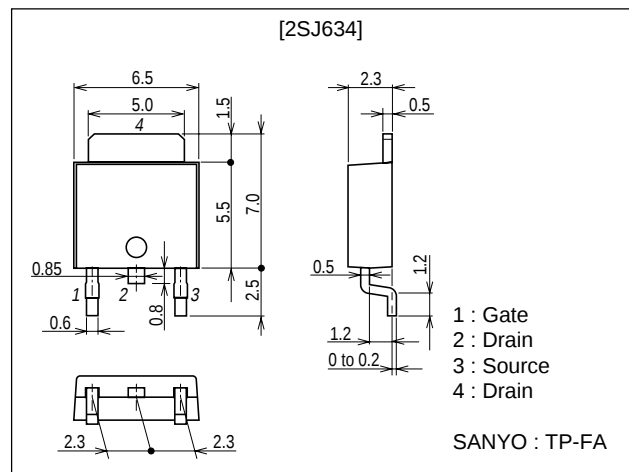
unit : mm

2083B

**Package Dimensions**

unit : mm

2092B



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Specifications

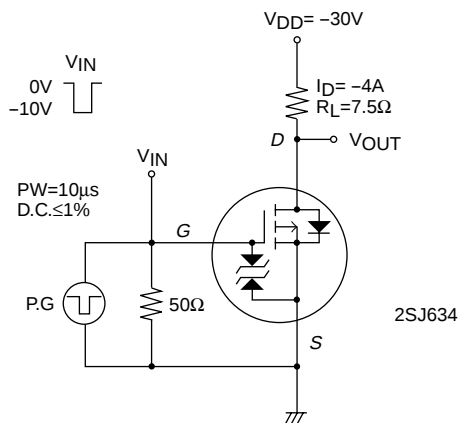
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		-60	V
Gate-to-Source Voltage	V_{GS}		±20	V
Drain Current (DC)	I_D		-8	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	-32	A
Allowable Power Dissipation	P_D		1	W
		Tc=25°C	20	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-60			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60V, V_{GS} = 0$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V, V_{DS} = 0$			±10	μA
Gate-to-Source Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1.2		-2.6	V
Forward Transfer Admittance	yfs	$V_{DS} = -10V, I_D = -4A$	4	7		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = -4A, V_{GS} = -10V$		105	138	mΩ
	$R_{DS(on)2}$	$I_D = -4A, V_{GS} = -4V$		145	205	mΩ
Input Capacitance	Ciss	$V_{DS} = -20V, f = 1MHz$		990		pF
Output Capacitance	Coss	$V_{DS} = -20V, f = 1MHz$		110		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -20V, f = 1MHz$		76		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		12		ns
Rise Time	t_r	See specified Test Circuit.		85		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		95		ns
Fall Time	t_f	See specified Test Circuit.		80		ns
Total Gate Charge	Qg	$V_{DS} = -30V, V_{GS} = -10V, I_D = -8A$		22		nC
Gate-to-Source Charge	Qgs	$V_{DS} = -30V, V_{GS} = -10V, I_D = -8A$		4		nC
Gate-to-Drain "Miller" Charge	Qgd	$V_{DS} = -30V, V_{GS} = -10V, I_D = -8A$		4		nC
Diode Forward Voltage	V_{SD}	$I_S = -8A, V_{GS} = 0$		-0.95	-1.2	V

Switching Time Test Circuit



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